



State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

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(603) 271-3406 FAX (603) 271-7894



December 10, 2002
Letter of Deficiency
DAM #071.03

Mr. Michael Lynch
Public Works Dept.
Town of Durham
100 Stone Quarry Drive
Durham, NH 03824

RE: Oyster River Dam, Durham

Dear Mr. Lynch:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on October 9, 2002. During this visual inspection and/or file review, the following deficiencies were observed:

Deteriorated concrete was noted in the following locations (refer to enclosed sketch);

- a. The upper and lower portions of the eight concrete piers supporting the spillway slab;
 - b. Along the base of the left abutment wall of the gate structure/right spillway training wall
Rebar was also exposed in this area;
 - c. To the right of the low level gate at the base of the downstream face;
 - d. On the interior ceiling of bay 8 (counting from right end). Rebar was also exposed;
2. Minor seepage was evident at the corner of the right masonry abutment wall. This wet area has been noted during past inspections;
 3. The dam cannot pass the routed design storm with one foot of freeboard remaining on the dam;
 4. The Emergency Action Plan (EAP) needs updating and testing; and
 5. The Operation and Maintenance Plan (O&M) needs finalizing.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

January 30, 2003:

1. Finalize the O&M plan;
2. Update and test the EAP;

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November 1, 2003:

3. Repair the deteriorated concrete noted in the following locations:
 - a. The upper and lower portions of the eight concrete piers supporting the spillway slab;
 - b. Along the base of the left abutment wall of the gate structure/right spillway training wall. Rebar was also exposed in this area;
 - c. To the right of the low level gate at the base of the downstream face;
 - d. On the interior ceiling of bay 8 (counting from right end). Rebar was also exposed;
4. Conduct a stability analysis to verify that the dam is stable under the design storm conditions (100-year storm with one foot overtopping dam);

On a Continuing Basis:

5. Monitor the minor seepage, which is evident at the corner of the right masonry abutment wall.

Due to the time that has lapsed as well as additional deficiencies observed as a result of the October 9, 2002 inspection, DES will be officially closing out the 1999 LOD. Enclosed is a copy for your reference. It is our hope that the additional deficiencies as well as the outstanding deficiency will be addressed within the schedule indicated above.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,
COPY
Grace E. Levergood, P.E.
Dam Safety Engineer

Attachments Guideline for an O&M plan, Copy of 1999 LOD, DB13

cc: Gretchen Rule ✓

Certified # 7000 1670 0000 0586 1100

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